Name:

at1110paper_practice_test (v47)

1. Expand the following expression into standard form.

$$(4x - 7)(4x + 7)$$

$16x^2 + 28x - 28x - 49$

$16x^2 - 49$

2. Solve the equation with factoring by grouping.

$$12x^2 + 10x - 18x - 15 \;=\; 0$$

$(2x - 3)(6x + 5) = 0$

$x = \frac{3}{2} \qquad x = \frac{-5}{6}$

3. Factor the expression.

$$x^2 + 10x + 16$$

$(x + 8)(x + 2)$

4. Expand the following expression into standard form.

$$(6x - 5)(4x + 7)$$

$24x^2 + 42x - 20x - 35$

$24x^2 + 22x - 35$

5. Factor the expression.

$$9x^2 - 49$$

$$(3x - 7)(3x + 7)$$

6. Solve the equation.

$$(9x - 7)(5x - 4) \;=\; 0$$

$$x = \frac{7}{9} \qquad x = \frac{4}{5}$$

7. Expand the following expression into standard form.

$$(5x - 2)^2$$

$$25x^2 - 10x - 10x + 4$$
$$25x^2 - 20x + 4$$

8. Solve the equation.

$$10x^2 + 22x + 17 \;=\; 3x^2 - 4x + 2$$

$$7x^2 + 26x + 15 = 0$$
$$(7x + 5)(x + 3) = 0$$
$$x = \frac{-5}{7} \qquad x = -3$$